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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/829,453

04/20/2004

Stephen Decker Vernon

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EXAMINER

MCFADDEN, SUSAN IRIS

ART UNIT

PAPER NUMBER

2626

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,453	<b>Applicant(s)</b> VERNON ET AL.	
	<b>Examiner</b> Susan McFadden	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,10-13 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 2,3,8,9,14, and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 7, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Schrogmeier et al (6,687,669).

In regard to claims 1, 7, and 13, Schrogmeier et al. show in Figure 2, a system, medium, and method for encoding audio signals that comprises: receiving spectral components that represent spectral content of the audio signal (claimed input terminal); applying a perceptual model to the spectral components to obtain a first masking curve that represents perceptual masking effects of the audio signal; deriving an estimated value of a coding parameter that specifies an offset between a second masking curve and the first masking curve, wherein the estimated value of the coding parameter is derived in response to a number of bits that are available for encoding the audio signal; obtaining an optimum value of the coding parameter by modifying the estimated value of the coding parameter in an iterative process that searches for the optimum value of the coding parameter according to the perceptual model; generating encoded spectral

components by quantizing spectral components according to the second masking curve (claimed output terminal), wherein resolution of the quantizing is responsive to the first masking curve and the coding parameter such that the optimum value of the coding parameter minimizes perceptibility of quantizing noise according to the perceptual model; and assembling a representation of the encoded spectral components into an output signal (claimed signal processing circuitry, col. 4, claim 1).

3. Claims 4-6,10-12, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Todd et al. "ATSC Standard: Digital Audio Compression (AC-3), Revision A" (cited by Applicant).

In regard to claims 4-6,10-12, and 16-18, Todd al. show in pages 2-4, a system, medium, and method for encoding audio signals using bit allocation that comprises: receiving spectral components that represent spectral content of the audio signal; deriving an estimated value of a coding parameter, wherein the estimated value is an estimate of an optimum value of the coding parameter and is derived by: selecting an initial value for the coding parameter; determining a first number of bits in response to the initial value of the coding parameter; determining a second number of bits from a difference between the first number of bits and a third number of bits that corresponds to a number of bits available to encode the audio signal; and deriving the estimated value of the coding parameter in response to the initial value of the coding parameter and the second number of bits; generating encoded spectral components by quantizing spectral components according to the coding parameter, wherein resolution of the quantizing is responsive to the coding parameter such that the optimum value of the

coding parameter minimizes perceptibility of quantizing noise according to a perceptual model; and assembling a representation of the encoded spectral components into an output signal. Todd et al further shows that that the spectral components are arranged in a plurality of blocks (pg. 8).

***Allowable Subject Matter***


4. Claims 2,3,8,9,14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Schrogmeier et al. show the encoding system and method discussed above. In regard to claims 2,3,8,9,14, and 15, they do not specifically show or suggest selecting an initial value for the coding parameter; determining a first number of bits in response to the initial value of the coding parameter to use in quantizing the spectral components; determining a second number of bits from a difference between the first number of bits and a third number of bits, wherein the third number of bits corresponds to the number of bits that are available for encoding the audio signal; and deriving the estimated value of the coding parameter in response to the initial value of the coding parameter and the second number of bits or that the spectral components are arranged in a plurality of blocks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan McFadden whose telephone number is 571-272-7621. The examiner can normally be reached on Monday-Friday, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Susan McFadden  
Primary Examiner  
Art Unit 2626

September 13, 2007